ABSTRACT

To enable fine droplets of a diameter smaller than a nozzle diameter to be stably ejected at a high driving frequency. The present invention relates to a method for driving an ink jet recording head which method applies a driving voltage to a piezoelectric actuator 4 to change a pressure in a pressure generating chamber 2, thus ejecting ink droplets 1 through a nozzle 7 in communication with the pressure generating chamber 2. A waveform of the driving voltage comprises a first voltage changing process for applying a voltage in a direction that inflates the pressure generating chamber 2, a second voltage changing process for then applying a voltage in a direction that compresses the volume of the pressure generating chamber, a third voltage changing process for applying a voltage in a direction that inflates the volume of the pressure generating chamber 2 again, and voltage changing times t_2 and t_3 during the second and third voltage changing processes are set to have such lengths as shown below, relative to a resonance frequency T_c of a pressure wave generated in the pressure generating chamber 2: $0 < t_2 < T_c/2$ and $0 < t_3 < T_c/2$.